

Appl. No. 10/707,274

Reply to Non-Final Office Action Mailed 10-03-2007

REMARKS

Claims 31-37 and 61 are pending in the present application. Claims 31-37 and 61 are again rejected under 35 U.S.C. 102(e), as being anticipated by Chen, et al. (U.S. Patent No. 6,933,726). Applicants respectfully traverse the rejection based on Chen.

In response to one of Applicants' previously submitted arguments, Examiner states that "[h]owever FIG. 8 of Chen clearly discloses electrode 12 having an identifiable external section (end of the electrode toward the outer surface of the sleeve) and a base section (end of the electrode toward the inner surface of the sleeve)." The Examiner does not appear to have fully considered Applicants' arguments. First, Applicants' argument was not simply that electrode 12 did not have an external section and a base section. Applicants argued that, although item 12 is, indeed, an electrode positioned between the outer surface of the sleeve and the inner surface sleeve, "electrode 12 does not have, however, an identifiable external section and a base section, wherein the external section is larger than the base section, as recited in claim 31." (emphasis added). Secondly, Applicants' assertion that the present invention is patentably distinct from the cited reference was not limited to the reasoning that electrode 12 did not have an external section and base section, as recited in claim 31. Generally, the cited reference fails to teach a sleeve assembly having the specific combination of a sleeve, as recited in claim 1, and an electrode, as also recited in the claim.

Applicants maintain, and incorporate herein, the arguments submitted with the previous Response to Office Action (dated March 19, 2007) that the pending claims are not taught or suggested by Chen. Generally, Chen does not teach or suggest a *sleeve assembly* and, more particularly, a *sleeve and electrode* combination, having the physical attributes recited in claim 31. Applicants direct attention to claim 31, and the fact that the sleeve assembly requires that certain structural limitations of the claimed electrode are directed to its position relative to the sleeve or parts of the sleeve (e.g., sleeve hole). Thus, in comparing the claim to the cited reference, one must be clear on what is being construed as the sleeve in any cited reference and the position and extent of that sleeve. Such clarity is not evident in the Office Action.

Referring again to FIG. 8 of Chen, the Examiner maintains that item 52 is an "electrode" as recited in claim 1. To anticipate the electrode of claim 1, item 52 must provide each of the following:

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- (a) it must be disposed within a sleeve hole;
- (b) it must extend from the outer surface of the sleeve hole and terminate proximate the inner surface of the sleeve hole; and
- (c) must have an external section that is larger than a base section, the external section being positioned proximate the outer surface and the base section being disposed within the sleeve hole proximate the inner surface.

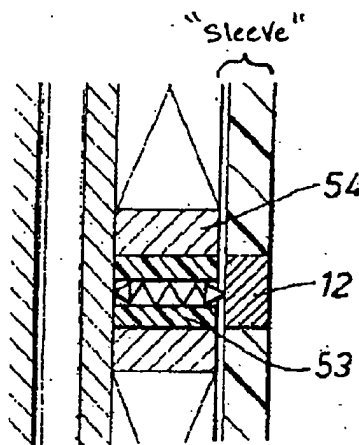
In order to evaluate the item 12 as a possible equivalent to the claimed electrode, a sleeve in accordance with the claimed sleeve assembly must be identified in the cited reference (*i.e.*, in FIG. 8). The Examiner has apparently decided on item 11: "sleeve 11 having an outer surface and an inner surface, and a sleeve hole extending from the outer surface to the inner surface..."

The Examiner refers further to electrode 12 as being disposed within the sleeve hole and extending from the outer surface to the inner surface. Item 11 and item 12 are readily ascertained from FIG. 3. Importantly, FIG. 3 shows that item 12 has the same thickness as sleeve 11 and is substantially flush with the inner and outer surfaces of the item 11. It appears then, that the combination of item 11 and item 12 meets the first and second limitations required of the electrode as provided above.

If the Examiner elects to cite sleeve 11 and electrode 12 as the bases for the rejection of claim 1, the Examiner cannot deviate from the physical limitations of these two components in the reference (*i.e.*, their depiction in FIG. 8). Careful attention has to be given to where the outer surface and inner surface of sleeve 11 are located. The sleeve 11 clearly ends where its "inner surface" abuts spacer 54, spacer 53, and contact assembly 52. See Excerpt from FIG. 8 below where the "thickness" or extent of the sleeve 11 is indicated. At this junction, electrode 12 also ends and abuts contact assembly 52. It is also clear that electrode 12 has a "rectangular cross section" that fits within or is flush with the "inner surface" and "outer surface" of the sleeve 11.

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EXCERPT FROM FIG. 8 (CHEN) (WITH APPLICANTS' COMMENTS)

Within the rectangular cross-section of electrode 12, the Examiner may construe the radially outward facing surface to be an external section that is positioned proximate the outer surface of the sleeve, as required by claim 1, and the radially inward facing surface as a base section that is disposed within the sleeve hole and proximate the inner surface of the sleeve, as further required by claim 1. Because the base section is a part of electrode 12, the base section must be found within the physical confines of the electrode 12, *i.e.*, in the rectangular cross section as identified by a common cross-hatch pattern. Within the rectangular section of the electrode 12, no external section is "larger than the base section", as required by claim 1. Electrode 12 in FIG. 3 has, instead, a uniform width from the outer surface to the inner surface of the sleeve hole.

In that regard, Chen '726 does not anticipate the apparatus of claim 1.

In referring to electrode 12, the Examiner describes the electrode as extending from the outer surface to the inner surface and adapted to conductively connect to the mandrel (51). The mandrel 51 is positioned, however, away from and spaced from sleeve 11. The Examiner appears to refer to contact assembly 53 as being an extension of the electrode 12. The contact assembly 53 is not, however, a part of item 12 and thus, cannot be an extension thereof. To refer to contact assembly 53 as providing the base section in respect to which an external section can be said to be "larger," ignores the specific limitations recited in claim 1, which is impermissible.

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For example, the contact assembly 53 cannot provide the "base section" of the electrode because (a) the contact assembly is not disposed within the sleeve or the sleeve hole. The sleeve 11 and sleeve hole stop radially outward of the spacer 54 and contact assembly 53 (see the "sleeve" in Excerpt from FIG. 8). Further, the contact assembly is not proximate the "inner surface" of the sleeve. The contact assembly extends to the left of and well beyond the inner surface of the sleeve.

To further highlight the distinction between the sleeve assembly of claim 1 and the cited references, Applicants amend claim 31 to make clear that the sleeve assembly has a "one-piece" sleeve (and, thus, not to be construed as several concentric sleeves and spacers about a mandrel). Applicants also amend claim 31 to recite that the electrode terminates proximate the inner surface of the sleeve. The Figures in the application clearly depict a one-piece assembly and an electrode that terminates proximate the inner surface of the sleeve, so no new matter is added.

Accordingly, claim 31 and each of dependent claims 32-37, and 61, are patentable over the cited references.

In view of the foregoing, the claims pending in the application are believed to be in condition for allowance. The Examiner is respectfully requested to pass the application to issue.

No fee is believed to be due at this time. If another appropriate Petition is required, this statement shall serve as Applicants' Petition to the USPTO. The Commissioner is hereby authorized to charge any additional fees or credit any overpayments related to this Response to Deposit Account No. 190610 (20.2894US), maintained by Schlumberger Technology Corporation.

The undersigned is available for consultation at any time, if the Examiner believes such consultation may expedite the resolution of any issues.

Respectfully submitted,

Date:

12/19/2007

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